SZUM et al. - 09/757,828

Consequently, Applicants have attached hereto courtesy copies of the claims pending in U.S. Applications 10/162,235 and 10/119,296. The claims in these two applications were not filed to provoke an interference with U.S. Patent 6,104,488.

For any and all of the above reasons, the declaration of an interference with U.S. Patent 6,014,488 to Shustack is respectfully requested.

Respectfully submitted,

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Copy of current claims in U.S. Application 10/162,235 of SZUM et al.

- 72. An optical fiber coated with at least an inner primary coating and an outer primary coating, wherein said inner primary coating is obtained by curing a radiation-curable inner primary coating composition for an optical glass fiber comprising an oligomer and a monomer diluent having at least one functional group capable of polymerizing under the influence of radiation, wherein said monomer diluent has a high aromatic content.
- 73. The optical fiber of claim 72, wherein said inner primary composition comprises a photoinitiator and wherein said oligomer is based on a polyether backbone that is end-capped with acrylate groups via urethane linkages.
- 74. The optical fiber of claim 73, wherein said inner primary composition comprises 51.54 wt% of said oligomer.
- 75. The optical fiber of claim 73, wherein said composition comprises 2.5 wt% photoinitiator.
- 76. The optical fiber of claim 73, wherein said inner primary coating composition comprises ethoxylated nonylphenol acrylate.
- 77. The optical fiber of claim 76, wherein said inner primary coating composition comprises 20.86 wt% of said ethoxylated nonylphenol acrylate.
- 78. The optical fiber of claim 73, wherein said inner primary coating composition comprises lauryl acrylate.
- 79. The optical fiber of claim 78, wherein said inner primary coating composition comprises 7 wt% of said lauryl acrylate.
- 80. The optical fiber of claim 76, wherein said inner primary coating composition comprises gamma-mercaptopropyl trimethoxysilane.

- 81. The optical fiber of claim 80, wherein said inner primary coating composition comprises 1 wt% of said gamma-mercaptopropyl trimethoxysilane.
- 82. An optical fiber coated with a radiation-cured primary coating of polymeric material, the optical fiber comprising an elongated strand of glass that is adapted to guide lightwaves along its length, the primary coating of polymeric material being

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40% of the first delamination resistance.

an in situ modulus that resides within the range: 90 to 500 psi at 20°C.; a first delamination resistance at 20°C.; and a second delamination resistance at a temperature in the range 100-200°C. which is less than

- 83. The optical fiber of claim 82 wherein the first delamination resistance is greater than 180 grams.
- 84. The optical fiber of claim 82 wherein the first delamination resistance is greater than 400 grams.
- 85. The optical fiber of claim 82 wherein the second delamination resistance is less than 130 grams.
- 86. The optical fiber of claim 82 wherein the second delamination resistance is less than 30% of the first.
- 87. The optical fiber of claim 82 wherein the primary coating material comprises a polyether oligomer, one or more monomers, and a photoinitiator.
- 88. The optical fiber of claim 82 wherein the primary coating material comprises an oligomer based on a polyether backbone that is end-capped with acrylate groups via urethane linkages.

- 89. The optical fiber of claim 82 further including a secondary layer of coating material that surrounds the primary layer of coating material, the secondary layer having a substantially higher equilibrium modulus than the primary coating material.
- 90. The optical fiber of claim 82 wherein a plurality of said fibers are disposed in a longitudinal array with longitudinal axes thereof being substantially parallel to one another, said fibers being surrounded by a matrix bonding material that fills interstices between adjacent optical fibers and extends to a periphery that envelops the array.
- 91. The bonded array of claim 90 wherein said bonded array is substantially flat.
- 92. The optical fiber of claim 82 wherein a plurality of the fibers are disposed in a core tube that extends along a longitudinal axis of a cable, the cable including: (i) a plastic jacket that encloses the core tube, and (ii) strength members having tensile stiffness for receiving loads applied to the cable.
- 93. The optical fiber of claim 92 wherein said fibers are positioned in a longitudinal array with longitudinal axes thereof being substantially parallel to one another, said fibers being surrounded by a matrix bonding material that fills interstices between adjacent optical fibers and extends to a periphery that envelops the array.
- 94. The optical fiber of claim 82 wherein the primary coating comprises: a difunctional polyester or polyether urethane acrylate oligomer in an amount between 40% and 85% by weight; a photoinitiator in an amount between 0.1% and 10% by weight; and one or more of the following: 1) a monofunctional acrylate monomer with at least one aromatic moiety, 2) a monofunctional aliphatic acrylate monomer, or 3) a difunctional aliphatic acrylate monomer.
- 95. The optical fiber of claim 94 further comprising a trifunctional acrylate monomer.
- 96. The optical fiber of claim 94 further comprising an alkoxysilane coupling agent.

97. The optical fiber of claim 94 further comprising a mercapton chain transfer agent.

Copy of current claims in U.S. Application 10/119,296 of SZUM et al.

73. An optical fiber coated with a radiation-cured primary coating of polymeric material, the optical fiber comprising an elongated strand of glass that is adapted to guide lightwaves along its length, the primary coating of polymeric material being

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leaving substantially no residue on the optical fiber after stripping and having sufficient adhesion to the fiber to avoid delamination.

74. An optical fiber coated with a radiation-cured primary coating of polymeric material, the optical fiber comprising an elongated strand of glass that is adapted to guide lightwaves along its length, the primary coating of polymeric material being

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- a modulus that resides within the range 174 to 348 psi at 23°C.; and a fiber pull-out friction that resides within the range 3 to 40 g/mm.
- 75. The optical fiber of claim 73, the primary coating of polymeric material being CHARACTERIZED BY
 - a fiber pull-out friction that resides within the range 3-40 g/mm.
- 76. The optical fiber of claim 75, the primary coating of polymeric material being CHARACTERIZED BY
 - a modulus that resides within the range 174 to 348 psi at 23°C.
- 77. The optical fiber of claim 73 wherein the primary coating material comprises a urethane-acrylate oligomer, one or more monomers, and a photoinitiator.
- 78. The optical fiber of claim 73, wherein the primary coating materials comprise: a difunctional acrylate oligomer in an amount between 43% and 70% by weight;

a monofunctional acrylate monomer with aromatic moiety in an amount between 16% and 50.5% by weight;

- a monofunctional aliphatic acrylate in an amount less than 14.35% by weight; a photoinitiator in an amount between 1% and 4% by weight; and an adhesion promoter in an amount of about 0.95% or less by weight.
- 79. The optical fiber of claim 73 further including a secondary layer of coating material that surrounds the primary layer of coating material, the secondary layer having a substantially higher modulus than the primary coating material.
- 80. The optical fiber of claim 73 wherein a plurality of said fibers are disposed in a longitudinal array with longitudinal axes thereof being substantially parallel to one another, said fibers being surrounded by a matrix bonding material that fills interstices between adjacent optical fibers and extends to a periphery that envelops the array.
- 81. The array of claim 80 wherein said array is substantially flat.
- 82. A bonded array of transmission media, which comprises:
 - a plurality of longitudinally extending optical fibers that are disposed in an array with longitudinal axes thereof being substantially parallel to one another, each of said optical fibers including at least one layer of a coating material leaving substantially no residue on the optical fiber after stripping and having sufficient adhesion to the fiber to avoid delamination; and
 - a matrix bonding material that fills interstices between adjacent optical fibers of the array and extends to a periphery that envelops the array.
- 83. A bonded array of transmission media, which comprises:
 - a plurality of longitudinally extending optical fibers that are disposed in an array with longitudinal axes thereof being substantially parallel to one another, each of said optical fibers including at least one layer of a coating material having a modulus within the range 174 to 348 psi at 20°C., and a fiber pull-out friction that is within the range 3 to 40 g/mm; and

- a matrix bonding material that fills interstices between adjacent optical fibers of the array and extends to a periphery that envelops the array.
- 84. The bonded array of claim 82, wherein the layer of coating material comprises a urethane-acrylate oligomer, one or more monomers, and a photoinitiator.
- 85. The bonded array of claim 82 wherein said bonded array is substantially flat.
- 86. An optical fiber coated with a radiation-cured primary coating of polymeric material, the optical fiber comprising an elongated strand of glass that is adapted to guide lightwaves along its length, the primary coating of polymeric material being

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an equilibrium modulus that resides within the range 120 to 500 psi at 20°C; and a pull-out force that resides within the range 0.5 to 1.2 lb/cm.